

What Is Claimed Is:

1. A device for adaptive distance and speed control in motor vehicles, comprising a sensor device (14) for measuring the distance and relative speed of a target object located in front of the vehicle; a regulating device (10), which has a distance control function to regulate to a specific distance to the target object and outputs temporally changeable actuating variables (a_m , a_b) to actuating elements (30, 32) of the drive and/or brake system of the vehicle; and a torque dampener (26) for limiting the actuating variables and/or the temporal changes thereof,
characterized by a dynamic device (34), which detects sudden changes in the traffic situation ascertained by the sensor device (14) and restricts the function of the torque dampener (26) according to the situation, maintaining distance and speed control.
2. The device as recited in Claim 1,
wherein a selection module (22), which is used to select the target object for the distance control, is configured to signal to the dynamic device (34) a change in the target object, and this target object change is a criterion for the dynamic device (34) for detecting a sudden change in the traffic situation.
3. The device as recited in Claim 1 or 2,
wherein the dynamic device (34) receives the actuating variables (a_m , a_b) conveyed to the torque dampener (26) and detects a switch of actuating elements as criterion for the sudden change in the traffic situation on the basis of these actuating variables.
4. The device as recited in Claims 2 and 3,
wherein the dynamic device restricts or suspends the function of the torque dampener (26) when a switch of actuating elements takes place immediate following a target object change.
5. The device as recited in Claim 4,
wherein, in a switch of actuating elements, the dynamic device suspends or restricts the torque dampening only for the old actuating element.
6. The device as recited in Claim 4 or 5,

wherein the dynamic device fully reactivates the torque dampener (26) with a time delay following the switch of actuating elements.

7. The device as recited in one of the preceding claims,
wherein the torque dampener (26) restricts the positive and negative accelerations of the vehicle, represented by the actuating variables (a_m , a_b), as well as their time derivatives to associated limit values in each case and the restriction of the function of the torque dampener consists of a change in these limit values.

8. The device as recited in Claim 7,
wherein the dynamic device modifies the limit value as a function of an evaluation variable (g), which is a measure for the dynamics of the traffic situation.